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TITLE: REDUCTION OF NOX IN CEMENT KILN EXHAUST GAS

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ABSTRACT:

PROBLEM TO BE SOLVED: To provide a $\underline{\text{NOx}}$ reduction process that can simultaneously satisfy both the improvement in economy and the organic sludge disposition unnecessitating its pre-treatment as drying, thereby increasing the NOx removal efficiency.

SOLUTION: The cement feedstock a is fed into the tail 4a of the kiln and fired to cement clinker a'. At this time, organic sludge b is introduced into the tail of the kiln 4a by a pump 8 and the NOx in the exhaust gas occurring in the firing is reduced by the denitrification of the ammonia contained in the organic sludge. Moreover, the organic sludge b is a waste and the economy of the NOx reduction treatment is improved. In the meantime, organic sludge requires the pre-treatment such as drying accompanied by deodorization in the conventional process, but in this invention, the moisture in the organic sludge b is evaporated with the heat for the firing of the cement feedstock. In addition, the ammonia is

decomposed by the denitrification action whereby the organic sludge can be efficiently disposed without its pre-treatment.

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